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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/031,489	05/13/2002	Marie-Helene Chassagne	0512-1001	6516

466 7590 09/23/2005  
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EXAMINER

KUHNS, SARAH LOUISE

ART UNIT PAPER NUMBER

1761

DATE MAILED: 09/23/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/031,489

Applicant(s)

CHASSAGNE ET AL.

Examiner

Sarah L. Kuhns

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 27 June 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 35-70 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 35-70 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

### ***Claim Rejections - 35 USC § 103***

Claims 35-70 are rejected under 35 U.S.C. 103(a) as being unpatentable over Volpenhein, US patent number 4,518,772 in view of the combination of The Handbook of Thermoset Plastics, Kester, U.S. Patent 4,960,600, Mikkelsen et al., U.S. Patent 5,516,536, and Seaborne, U.S. Patent 4,810,534.

Volpenhein disclosed a polyol fatty acid polyester composition useable in the food and pharmaceutical industry. The polyol of Volpenhein is any aliphatic compound containing at least 2 free hydroxyl groups, and Volpenhein recites that suitable polyols can be chosen from the class of non-toxic glycols. Volpenhein also discloses the use of sugar alcohols such as sorbitol, which contains 6 carbon atoms and a saturated hydrocarbon-based chain (see Column 3, lines 22-49). Volpenhein disclosed the use of 2 groups of fatty acids, group one comprising fatty acids such as behenic acid and group two comprising such acids as capric acid (which is also known by the name decanoic acid). It is noted that the melting point range of behenic acid is 80-82°C and the melting point range of capric acid is 31-32°C, which meets the claim limitation of a melting point range of at least 40°C. Volpenhein disclosed that group one of the fatty acids are present from 40-80% and group two of the fatty acids are present from 1-30%

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of the total coating composition. These disclosed weight percents on a total coating composition basis translate into weight percents that meet what is instantly claimed on a total fatty acid basis. In addition, the molar ratio of the fatty acids of group two to group one as disclosed by Volpenhein, using the molecular weights of behenic and capric acid, are within the molar ratio range as instantly claimed. Volpenhein also disclosed a process for preparing the coating composition wherein an esterification reaction is carried out between a polyol and the two groups of fatty acids (see Columns 1-6, Steps 1-3).

It is noted that a recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. See *In re Casey*, 152 USPQ 235 (CCPA 1967) and *In re Otto*, 136 USPQ 458, 459 (CCPA 1963). The composition of Volpenhein would be capable of being used as a cheese coating composition and therefore is interpreted to meet the use limitation of Claim 18.

Volpenhein does not disclose the percent of the coating composition that is comprised of the polyol fatty acid polyester, a process for coating cheeses, or the use of neopentyl glycol as the polyol.

Kester taught the use of polyol polyesters as moisture barriers for foods and that polyol polyesters would be useable for coating foods wherein it was desirable to reduce moisture loss (see Column 1, lines 5-31). Kester taught that the coating composition should contain from 25-100% polyol fatty acid esters. Kester also taught that the polyol

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fatty acid polyesters suitable for use could be prepared using the method of Volpenhein (see Column 5, lines 8-19). Kester taught different methods with which the polyol polyesters could be applied to the surface of food (see Column 6, lines 30-38). It would have been obvious to one of ordinary skill in the art at the time of the invention to use the method and percents as taught by Kester for the polyol fatty acid polyester of Volpenhein, since both are directed to polyol fatty acid polyesters for use in the food industry, and since Volpenhein disclosed the use of the polyol fatty acid polyester in food applications, but focused more on the efficient process of making the polyester and did not specify with detail the different applications of the polyester, therefore the ordinarily-skilled artisan would have necessarily referred to teachings of known systems in the art that used polyol fatty acid polyesters, such as that of Kester. Kester specifically states the use of a polyol fatty acid polyester and also states that the polyester could be made using the process of Volpenhein, and thus it would not have involved an inventive step for one of ordinary skill in the art to have utilized the method and percents of Kester with the composition of Volpenhein, as instantly claimed.

Mikkelsen discloses a method for coating cheeses, wherein the coating composition comprising at least 90 percent of an ester of at least one fatty acid and at least one polyol (see Column 4, line 1 and lines 40-55) is applied onto cheese (see Column 8, lines 20-68). Therefore, it would have been obvious to extend the teachings of Volpenhein and Kester, which disclose coating compositions similar to that of Mikkelsen, to the coating of cheese, in view of Mikkelsen's teaching that such compositions were effective in providing protective layers on cheese.

The Handbook of Thermoset Plastics taught that significant improvement in hydrolytic stability, chemical resistance and resistance to yellowing could be achieved through the use of neopentyl glycol in polyester compositions (see paragraphs 2 and 3 on page 119).

Thus, it would have been obvious for one of ordinary skill in the art to utilize neopentyl glycol as provided by The Handbook of Thermoset Plastics in the polyester as disclosed by Volpenhein. Volpenhein provides for the use of a non-toxic glycol in producing the polyester, and provides the general protocol and parameters for choosing a polyol in that it contains at least two free hydroxyl groups. As the teachings of Volpenhein do not specifically provide non-toxic glycols to choose from, the ordinarily skilled artisan would have necessarily referred to teachings of known chemicals in the art in order to create the polyester, such as that of The Handbook of Thermoset Plastics. The Handbook of Thermoset Plastics presents neopentyl glycol that is useable in polyester formation and provides the benefits of hydrolytic stability among others, and thus it would not have involved an inventive step for one of ordinary skill in the art to have utilized neopentyl glycol for the production of a polyol fatty acid polyester, as instantly claimed.

Seaborne taught a coating composition used as a moisture barrier for food products such as cheese (see Column 1, lines 15-56) containing acetylated monoglycerides and dicarboxylic acids, such as adipic acid (see Column 7, lines 1-23 and Column 8, lines 18-33). Seaborne also discloses dicarboxylic acid being present from 0-75% of the coating composition (see Column 6, lines 60-68) and improving film

flexibility (see Column 7, lines 9-10). Seaborne also taught the use of a plasticizer, such as shellac that is compatible with foodstuffs (see Column 6, lines 3-54). It would have been obvious to one of ordinary skill in the art at the time of the invention to add the dicarboxylic acid of Seaborne to the acetylated monoglyceride of Volpenhein to provide a food coating composition that was more flexible, in order to avoid cracks and fissures in the film (see Seaborne, Column 7, lines 1-13).

### ***Response to Arguments***

Applicant's arguments have been considered but are moot in view of the new ground(s) of rejection. Applicant argued that Volpenhein, Kester, and The Handbook of Thermoset Plastics did not disclose or suggest a coating or a process for coating cheese with a coating composition comprising esters of branched polyols as set forth in the claimed composition. However, Mikkelsen has been relied on above for this teaching, as well as to provide motivation for extending the teachings of the prior art to a process of coating cheese.

### ***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not

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mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sarah L. Kuhns whose telephone number is 571-272-1088. The examiner can normally be reached on Monday - Friday from 8:00 am - 4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Milton Cano can be reached at 571-272-1398. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

SLK

  
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